

**ABSTRACT**

[0064] An architecture for resource management of an IP-based cellular radio access network is presented. A measurement-based admission control scheme is used to monitor the load for each path in the network and QoS (quality of service) class and resource decisions are made based upon that information. A bandwidth broker is introduced in the cellular radio access network (RAN). The bandwidth broker processes the on-demand admission requests for IP resources by using the results of load control measurements. Since the requests can be processed very quickly using a simple table look-up, response times are fast, and the architecture is thus suitable for the cellular environment.